

ABSTRACT

To prevent an electrode improvable to measurement accuracy by using a novel self-assembled monolayer suppressing an influence of the interference substance in measuring an object to be measured, and a sensor using the same. The sensor has a modified electrode 12 and a counter electrode. The modified electrode 12 has a gold electrode 16 as an electrode base, a self-assembled monolayer 18 covering the gold electrode 16 and made of carboxyalkanethiol expressed by a chemical structural formula of $\text{HS}(\text{CH}_2)_n\text{COOH}$ ($n = 5$ to 9), and an enzyme 19 immobilized on the self-assembled monolayer 18. When measuring fructose, FDH may be used as the enzyme 19. The self-assembled monolayer 18 allows $\text{Co}(\text{phen})_3^{2+}$ as a mediator to pass through selectivity when being formed of 7-carboxy-1-heptanethiol.